



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/578,947	05/25/2000	Omar Kathwari	T30389US	7083

7590 04/13/2004

Arnold & Associates  
Gordon T. Arnold  
Suite 630  
2401 Fountainview  
Houston, TX 77057

EXAMINER

SNAPP, SANDRA S

ART UNIT PAPER NUMBER

3624

DATE MAILED: 04/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/578,947

Applicant(s)

KATHWARI ET AL.

Examiner

Sandra Snapp

Art Unit

3624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-157 is/are pending in the application.
- 4a) Of the above claim(s) 34-51, 85-102 and 137-157 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33, 52-84 and 103-136 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 May 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of Group I (claims 1-33, 52-84 and 103-136) in Paper No. 6 is acknowledged. The traversal is on the ground(s) that the inventions are not distinct and therefore should remain in the present application. The Applicant has asserted that Group I & II are indeed related because Group II would be classified under Group I, and as such should be considered related and allowed to remain in the present application. This is not found persuasive because the inventions themselves are different, unrelated and would require different searches. The classification system in the Business Methods area is very broadly divided, and as such, often times the various subsets contain vastly different inventions that are only maintained in the subclass by a broad, general categorization. The requirement is still deemed proper and is therefore made FINAL.

### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on 8-18-00 was filed in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered by the examiner.

### ***Specification***

Art Unit: 3624

The abstract of the disclosure is objected to because it is too long, it exceeds the 150 word limit. Correction is required. See MPEP § 608.01(b).

### ***Drawings***

The drawings are objected to because they are informal and in pencil. The drawings must be submitted in ink. Also, the margins do not comply with the requirements of 37 U.S.C. 1.84. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-33, 52-84 and 103-136 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 52 and 103 are indefinite because it is unclear whether the 'problems' in line 2 are the same problems as recited in the preamble or different problems. If they are different problems, they should be identified in such a way as not to be confusing. If they are the same problems, they should be preceded by "the" or "said." The same issue applies to 'solutions' in the last line.

Art Unit: 3624

Claims 8 and 59 are indefinite because it is unclear whether the 'received environment' in line 1 is the same 'received environment' as recited in independent claims 1 and 52. If it is a different received environment, it should be identified in such a way as not to be confusing. If it is the same received environment, it should be preceded by "the" or "said."

Claims 10, 61 and 113 are indefinite because it is unclear whether the 'clients' are the same as those of independent claims 1, 52 and 103? See the discussion above.

Claims 13, 64 and 116 are indefinite because it is unclear whether 'a problem type' is the same as that previously recited in claims 9, 60 and 111? See the discussion above.

Claims 18, 69 and 121 are indefinite because the language is unclear and confusing. For example, is the claim directed to searching for a solution record having the same 'qualities' as the problem definition record? And if so, then how does the quote and market come in to play? The language is very confusing and needs to be amended to more clearly define the present invention.

Claims 20, 71, and 123 are indefinite for the same reasons state above with regard to claims 18, 69 and 121. The wording is confusing and it is unclear what is trying to be claimed, specifically the relationship between the various entities or how they are defined with regard to one another.

Claims 2-7, 9, 11, 12-17, 19, 21-33, 53-58, 60, 62-63, 65-68, 70, 72-84, 104-112, 114-115, 117-120, 122 and 124-136 are indefinite because they depend from rejected base claims.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Art Unit: 3624

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-6, 8-26, 52-57 and 59-77 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed to non-statutory subject matter because they lack any recitation of technology in the body of the claims. The Patent Office has taken the position that some form of technology must be claimed in the body of the claims. Database in and of itself is not enough without defining what is meant by database. In other words, is it merely a collection of data, or does it include computer hardware and/or software also? The Board of Patent Appeals and Interferences has stated that claims lacking any technology are “nothing more than [an] abstract idea which is not tied to any technological art and is not a useful art as contemplated by the Constitution.” *Ex parte Bowman*, 61 USPQ2d 1669, 1671 (Bd. Pat. App. & Inter. 2001) (Unpublished). While it is understood that the Bowman case is not precedential, it is cited herein for its content and reasoning.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-33, 52-84 and 103-136 are rejected under 35 U.S.C. 102(b) as being anticipated by the Broka et al. patent (US 5,809,483).

The Broka patent discloses a method, system and apparatus for providing solutions to problems, the method comprising the steps of generating problem definitions for problems (col.

Art Unit: 3624

11, lines 35-40); receiving environmental information required for generating solutions for the problems (col. 12, lines 39-46); generating solutions for the problems dependent upon the environmental information and the problem definitions (col. 13, lines 10-16); communicating solutions to clients before the solutions are needed (col. 13, lines 10-16), a processor coupled to at least one source of environmental information and coupled to at least one client, the processor programmed to perform the above recited steps (col. 7, lines 48-59) and a memory coupled to the processor (col. 7, lines 48-59) (claims 1, 52 and 103);

the problem definitions are for problems related to securities trading (Abstract) (claims 2, 53 and 104);

storing the problem definitions in problem definition records in a database (col. 6, lines 15-18 and col. 7, lines 47-59) (claims 3, 54 and 105);

storing the solutions in solutions records in the database (col. 6, lines 15-18 and col. 7, lines 47-59) (claims 4, 55, 107 and 108);

the solutions records have at least one relation to the problem definition records (col. 12, lines 39-46) (claims 5, 56 and 106);

retrieving at least one solution from the solutions records in the database (col. 12, lines 39-46) (claims 6, 57 and 109);

at least one client is a broker-dealer computer system programmed and operated to effect securities trading (col. 5, lines 28-32) (claims 7, 58 and 110);

received environmental information changes, the method further comprising the steps of generating additional solutions dependent upon the changed environmental information and the problem definitions (col. 13, line 45 through col. 14, line 67); and communicating additional

Art Unit: 3624

solutions to clients before the additional solutions are needed (col. 13, line 45 through col. 14, line 67) (claims 8 and 59);

problems are categorized according to type (col. 12, lines 56-67) (claims 9, 60 and 111);  
generating subscriptions for solutions, the subscriptions comprising relations between clients and types of problems (col. 13, line 45 through col. 14, line 5) (claims 10, 61 and 113);  
submitting a request for a subscription (col. 13, lines 45-52) (claims 11, 62, 112 and 114);  
creating a subscription record in response to the submission of the request for a subscription (col. 12, lines 39-46) (claims 12, 63 and 115);

the subscription record comprises data elements identifying a client and a problem type (col. 11, lines 35-40) (claims 13, 64 and 116);

creating at least one problem definition record dependent upon problem definition rules (col. 13, lines 1-31) (claims 14, 65 and 117);

the problem record comprises data elements identifying problem type, side, symbol, and quantity (col. 13, line 45 through col. 14, line 67) (claims 15, 66 and 118);

receiving environmental information comprises receiving market information in the form of quotes, the quotes comprising data elements further comprising side, symbol, quantity, market, and a tag; (col. 13, line 14 through col. 14, line 67) (claims 16, 67 and 119);

the quote tag does not indicate that the quote is closed, the method further comprising finding a problem definition record having the same side and symbol as the quote (col. 13, line 45 through col. 15, line 49) (claims 17, 68 and 120);



Art Unit: 3624

searching for a solution record having the same problem type, side, and symbol as the problem definition record having the same side and symbol as the quote and the same market as the quote (col. 12, line 38 through col. 15, line 49) (claims 18, 69 and 121);

the solution record is found, the method further comprising updating the solution record with the price from the quote (col. 13, line 45 through col. 15, line 49) (claims 19, 70 and 122);

the solution record is not found, the method further comprising creating a new solution record having the same problem type, side, and symbol as the problem definition record having the same side and symbol as the quote, the same market as the quote, and the same price as the quote (col. 12, line 38 through col. 15, line 49) (claims 20, 71 and 123);

a quote is received, wherein the quote tag indicates that the quote is closed, the method further comprising deleting solution records having the same side, symbol, and market as the quote (col. 14, line 31 through col. 15, line 49) (claims 21, 72 and 124);

repeatedly finding a subscription record so that each existing subscription record is found in turn (col. 14, line 31 through col. 15, line 49) (claims 22, 73 and 125);

at least one subscription record is found, the method further comprising finding, for each found subscription record, a related record of data communications parameters for the client identified in the found subscription record (col. 14, line 31 through col. 15, line 49) (claims 23, 74 and 126);

finding, for each found subscription record, at least one related problem definition record (col. 14, line 31 through col. 15, line 49) (claims 24, 75 and 127);

Art Unit: 3624

at least one problem definition record is found, the method further comprising finding, for each found problem definition record, at least one related solution record (col. 12, line 38 through col. 13, line 43) (claims 25, 76 and 128);

communicating, dependent upon data communication parameters identified in the found record of data communications parameters, to the client identified in the found subscription record at least one data element of the found solution record (col. 12, line 38 through col. 13, line 43) (claims 26, 77 and 129);

communicating solutions to clients comprises communicating solutions to an order processing system on a broker-dealer 3 computer (col. 7, lines 13-25) (claims 27, 78 and 130);

receiving at least one customer order (col. 12, lines 1-37) (claims 28, 79 and 131);

the customer order comprises data elements identifying symbol, quantity, and optionally, price, market, and order type (col. 14, lines 60-65) (claims 29, 80 and 132);

the customer order type has a relation to the problem type (col. 14, lines 60-65) (claims 30, 81 and 133);

finding at least one solution record having the same symbol as the received customer order and also having a problem type related to the customer order type in the received customer order (col. 16, lines 6-67) (claims 31, 82 and 134);

sending to at least one market at least one solution order, the solution order being dependent upon the customer order and the data in the solution record (col. 12, lines 1-37) (claims 32, 83 and 135); and

Art Unit: 3624

sending to at least one market at least one solution order, the solution order comprising the side, symbol, quantity, price, and market data elements from the found solution record (col. 13, line 45 through col. 14, line 30) (claims 33, 84 and 136).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Lynch patent is directed to a computer reservation system. The Barr et al. and Koskinen patents are directed to neural networks for financial systems. The Negishi, Marshall and Ando patents are for electronic forecasting systems. The Peckover, Harris et al., Takriti et al., Edelman, Gilbert et al., Leon et al., Odom et al., Minton, Knowlton et al., Atkins, Champian et al., Earle, Wilson, Edesess, Nevo et al., O'Shaughnessy, Black et al., Hardesty and Zurstrassen patents are all directed to electronic financial systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra Snapp whose telephone number is 703-305-6940. The examiner can normally be reached on Mon.-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on 703-308-1065. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3624

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SS

*Sandra Snapp*  
SANDRA S. SNAPP  
PATENT EXAMINER  
GROUP 3500